

IV. REMARKS/ARGUMENTS

A. Amendment to the Drawings

On page 2 of the Office Action, the Examiner indicates that Figure 1 should be designated by a legend such as "Prior Art" because only that which is old is illustrated.

In accordance with the Examiner's suggestion, old Figure 1 has been replaced with new Figure 1, which includes the legend "Prior Art".

B. Amendments to the Specification

On page 2 of the Office Action, the Examiner asks for the Applicant's cooperation in correcting any errors in the specification of which the Applicant may become aware.

The Applicant respectfully submits that upon review of the specification, a minor typographical error was detected in the paragraph beginning on line 4 of page 16. Accordingly, this paragraph has been amended in order to correct the minor typographical error.

The specification is now believed to be error free.

C. Amendments to the Claims

The application still contains 31 claims.

Claims 2-19, 21-28 and 31 have been amended in order to correct minor informalities. No amendments relating to the patentability of the subject matter of the claims have been made.

In addition, no new matter has been added to the present application under the current amendment.

D. Statements of Rejection and Reply

i) Claim Objections

On page 3 of the office Action, the Examiner has objected to claims 2-19 and 21-28 because they commence with "A method" and "A multi-service gateway" respectively, instead of "The method" and "The multi-service gateway".

The Applicant respectfully submits that claims 2-19 and 21-28 have been amended such that they now commence with "The method" and "The multi-service gateway", respectively.

The Applicant further submits that the term "a connection" in claim 6, has been amended such that it now reads "the connection".

In light of the amendments described above, the Examiner is respectfully requested to withdraw his objections to claims 2-19 and 21-28.

ii) Claim Rejections under 35 USC §112

In the Office Action, the Examiner has rejected claims 21-22 under 35 USC §112. More specifically, the Examiner has rejected claim 21 because there is no

antecedent basis for the term “the resource pool”, and has rejected claim 22 because it depends from rejected claim 21.

The Applicant respectfully submits that claim 21 has been amended such that there is now antecedent basis for each term found within the claim. Accordingly, both claims 21 and 22 are now believed to be in compliance with 35 USC §112.

iii) Claim Rejections under 35 USC §102(e)

In the Office Action, the Examiner has rejected claims 1-9, 11-12, 16, 19-22, 26 and 29-31 under 35 USC §102(e) as being anticipated by U.S. Patent 6,167,028 (hereafter referred to as Harris).

For the reasons presented below, the Applicant respectfully traverses the Examiner’s rejections, and submits that claims 1-9, 11-12, 16, 19-22, 26 and 29-31 are in allowable form.

Claim 1

The Examiner’s attention is respectfully directed towards the following limitation of independent claim 1.

A method of processing a request for a connection through a multi-service gateway, comprising:

allocating resources from a resource pool as a function of: a usage level of the pool, a priority level of the connection request and **a pool occupancy threshold.**

The Applicant respectfully submits that the reference cited by the Examiner does not disclose, teach or suggest the invention of claim 1. More specifically, Harris does not disclose the limitation of “allocating resources from a resource pool as a function of: ... a pool occupancy threshold”.

Firstly, the Applicant respectfully submits that the Examiner has not adequately identified where in the Harris reference “a pool occupancy threshold” is allegedly disclosed. On page 5 of the Office Action, the Examiner alleges that “a pool occupancy threshold” is disclosed at col. 4, lines 25-44 of the Harris reference. The Applicant respectfully disagrees with the Examiner, and submits that there is nothing in col. 4, lines 25-44 of the Harris reference that discloses anything related to “a pool occupancy threshold”. Instead, the portion of the Harris reference identified by the Examiner simply describes the possibility of cell relay networks becoming congested, the problems associated with congested networks and existing methods of dealing with network congestion. As such, the portion of the Harris reference identified by the Examiner fails to disclose the above-identified limitation of independent claim 1.

In addition, upon a complete review of the Harris reference, the Applicant respectfully submits that nowhere in the Harris reference is there anything disclosed about “a pool occupancy threshold”.

Finally, in addition to the fact that Harris does not disclose anything about “a pool occupancy threshold”, the Applicant further submits that Harris does not disclose anything about “allocating resources from a resource pool as a function of: ... a pool occupancy threshold” [emphasis added]. Instead, Harris discloses a method for facilitating the transmission of cells having multiple priorities through a cell relay network. The method comprises providing a connection admission attributes message to a source node that has requested a network connection. The connection admission attributes message indicates to the source node the number of cells of a given priority that are authorized transmission during a particular interval of time. It is then up to the source node to transmit the cells of different priorities through the network while enforcing the limits specified in the connection admission attributes message. There is nothing in the method

described by Harris that discloses “allocating resources from a resource pool as a function of...a pool occupancy threshold”.

As per §2131 of the MPEP, in order “to anticipate a claim, the reference must teach every element of the claim”. Since Harris does not teach every limitation of independent claim 1, Harris does not support a rejection based on anticipation. As such, for the reasons presented above, the Examiner is respectfully requested to withdraw his rejection of independent claim 1.

If the Examiner finds the Applicant's arguments unconvincing, and continues to hold that Harris anticipates the invention of claim 1, the Examiner is respectfully invited to indicate where in the Harris reference each of the limitations of independent claim 1 is believed to be taught, and in particular the limitation of “allocating resources from a resource pool as a function of...a pool occupancy threshold”.

Claims 2-9, 11-12, 16, and 19

Claims 2-9, 11-12, 16, and 19 depend from independent claim 1, and as such incorporate by reference all the limitations contained therein, including the limitation of “allocating resources from a resource pool as a function of...a pool occupancy threshold”, which has been shown to be absent from Harris.

Accordingly, for the same reasons as those presented above with respect to independent claim 1, the Examiner is respectfully requested to withdraw his rejection of dependent claims 2-9, 11-12, 16, and 19.

Claim 20

The Examiner's attention is respectfully directed towards the following limitation of independent claim 20.

A multi-service gateway, comprising:

a plurality of packet-switched ports;
a pool of port processing software entities (PPSEs), each PPSE having sufficient capacity to provide processing for any of the packet-switched ports; and
a resource manager adapted to execute a method comprising receiving connection requests and, if a particular connection request involves at least one of the packet-switched ports, **allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of a priority level of the particular connection request, as a function of a usage level of the pool and as a function of a pool occupancy threshold.**

The Applicant respectfully submits that the reference cited by the Examiner does not disclose, teach or suggest the invention of claim 20.

More specifically, as mentioned above with respect to claim 1, Harris does not disclose the limitation of "a pool occupancy threshold". Since Harris does not disclose "a pool occupancy threshold", the Applicant respectfully submits that Harris cannot disclose a multi-service gateway having a resource manager for allocating a subset of the PPSEs "as a function of...a pool occupancy threshold." [emphasis added].

Since Harris does not teach every limitation of independent claim 20, Harris does not support a rejection based on anticipation. Accordingly, the Examiner is respectfully requested to withdraw his rejection of independent claim 20.

Claims 21-22, and 26

Claims 21-22, and 26 depend from independent claim 20, and as such incorporate by reference all the limitations contained therein, including the limitation of "allocating a subset of the PPSE's...as a function of...a pool occupancy threshold", which has been shown to be absent from Harris.

Accordingly, for the same reasons as those presented above with respect to independent claim 20, the Examiner is respectfully requested to withdraw his rejection of dependent claims 21-22, and 26.

Claim 29

The Examiner's attention is respectfully directed towards the following limitation of independent claim 29.

A multi-service gateway, comprising:
 means for receiving a connection request;
 means for determining a usage level of resources in a resource pool in the multi-service gateway; and
 means for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, otherwise determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.

The Applicant respectfully submits that the reference cited by the Examiner does not disclose, teach or suggest the invention of claim 29. More specifically, Harris does not disclose the limitation of "means for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold".

Since Harris does not disclose either "a pool occupancy threshold" or the concept of "allocating resources from a resource pool as a function of...a pool occupancy threshold" as argued above with respect to claim 1, the Applicant respectfully submits that Harris cannot disclose a multi-service gateway having "means for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold". Stated more clearly, since Harris does not disclose "an occupancy threshold" Harris cannot disclose determining if the usage level of the pool is below "an occupancy threshold".

Accordingly, since Harris does not teach every limitation of independent claim 29, Harris does not support a rejection based on anticipation. As such, the Examiner is respectfully requested to withdraw his rejection of independent claim 29.

Claim 30

The Examiner's attention is respectfully directed towards the following limitation of independent claim 30.

Computer-readable media tangibly embodying a program of instructions executable by a resource manager to perform a method of processing a received request for a connection through a multi-service gateway, the method comprising:

determining a usage level of resources in a resource pool in the multi-service gateway; and

allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, otherwise determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.

The Applicant respectfully submits that the reference cited by the Examiner does not disclose, teach or suggest the invention of claim 30. More specifically, for the same reasons as those set forth above with respect to independent claim 29, Harris does not disclose the limitation of "allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold"

Accordingly, since Harris does not disclose every limitation of independent claim 30, Harris does not support a rejection based on anticipation. As such, the Examiner is respectfully requested to withdraw his rejection of independent claim 30.

Claim 31

The Examiner's attention is respectfully directed towards the following limitation of independent claim 31.

At least one computer programmed to execute a process for processing a received request for a connection through a multi-service gateway, the process comprising:
determining the usage level of a resource pool in the multi-service gateway; and
if the usage level is below the pool occupancy threshold, allocating resources from the resource pool to satisfy the connection request;
if the usage level is not below the occupancy threshold, allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.

The Applicant respectfully submits that the reference cited by the Examiner does not disclose, teach or suggest the invention of claim 31. More specifically, for the same reasons as those set forth above with respect to independent claim 29, Harris does not disclose "if the usage level of the pool is below an occupancy threshold, allocating resources from the resource pool to satisfy the connection request".

Accordingly, since Harris does not disclose every limitation of independent claim 31, Harris does not support a rejection based on anticipation. As such, the Examiner is respectfully requested to withdraw his rejection of independent claim 31.

iv) Claim Rejections under 35 USC §103(e)

In the Office Action, the Examiner has rejected claim 10 under 35 USC §103(a) as being unpatentable over Harris in view of U.S. Patent Application 2001/0001000 (hereafter referred to as Thomas et al.).

In addition, the Examiner has rejected claim 13-15, 17, 23-25 and 27 under 35 USC §103(a) as being unpatentable over Harris in view of U.S. Patent 6,026,086 (hereafter referred to as Lancelot et al.).

For the reasons presented below, the Applicant respectfully traverses the Examiner's rejections, and submits that claims 10, 13-15, 17, 23-25 and 27 are in allowable form.

Claim 10

Claim 10 is dependent on independent claim 1, and as such incorporates by reference all the limitations contained therein, including the limitation reproduced below, which has already been found to be absent from Harris. The Applicant further submits that this limitation is also absent from Thomas et al:

“allocating resources from a resource pool as a function of: a usage level of the pool, a priority level of the connection request and a pool occupancy threshold.”

The Thomas et al. reference relates to a pricing center for internet protocol routed transactions, that enables a gateway operator to set preferences for completing an IP routed transaction. There is nothing in the Thomas et al. reference that discloses or suggests anything related to “allocating resources from a resource pool as a function of... a pool occupancy threshold.”

Since both Harris and Thomas et al. fail to disclose or suggest the above limitation of independent claim 1, and since claim 10 incorporates by reference all the limitations contained in claim 1, the Applicant respectfully submits that the combination of these references fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP. As such, the Examiner is respectfully requested to withdraw his rejection of dependent claim 10.

Claims 13-15, 17

Claims 13-15 and 17 are dependent on independent claim 1, and as such incorporate by reference all the limitations contained therein, including the limitation reproduced below, which has already been found to be absent from Harris. The Applicant further submits that this limitation is also absent from Lancelot et al:

“allocating resources from a resource pool as a function of: a usage level of the pool, a priority level of the connection request and a pool occupancy threshold.”

Although the Lancelot et al. reference relates to circuit switched networks and packet based networks, nowhere does Lancelot et al. disclose that resources in either of these networks are allocated as a function of "a pool occupancy threshold". Instead, Lancelot et al. discloses a communications controller that is operative to interconvert a first protocol signal with a circuit switched network protocol signal, and with a packet-based network protocol signal, in order to achieve a unified circuit-switched and packet-based communications system. There is nothing in Lancelot et al. to suggest allocating resources as a function of a pool occupancy threshold.

Since both Harris and Lancelot et al. fail to disclose or suggest the above limitation of independent claim 1, and since claims 13-15 and 17 incorporate by reference all the limitations contained therein, the Applicant respectfully submits that the combination of these references fail to establish a *prima facie* case of obviousness. As such, the Examiner is respectfully requested to withdraw his rejection of dependent claims 13-15 and 17.

Claims 23-25 and 27

Claims 23-25 and 27 are dependent on independent claim 20, and as such incorporate by reference all the limitations contained therein, including the limitation reproduced below, which has already been found to be absent from Harris. The Applicant further submits that this limitation is also absent from Lancelot et al:

"allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of ... a pool occupancy threshold"

As mentioned above, Lancelot et al. does not disclose or suggest anything in relation to allocating resources as a function of a pool occupancy threshold. Accordingly, Lancelot et al. also does not disclose allocating a subset of the PPSEs as a function of a pool occupancy threshold.

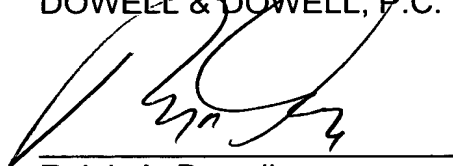
Since both Harris and Lancelot et al. fail to disclose the above limitation of independent claim 20, and since claims 23-25 and 27 incorporate by reference all the limitations contained therein, the Applicant respectfully submits that the combination of these references fail to establish a *prima facie* case of obviousness as per §2142 of the MPEP. As such, the Examiner is respectfully requested to withdraw his rejection of dependent claims 23-25 and 27.

CONCLUSION

In view of the above, it is respectfully submitted that claims 1-31 are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of claims 1-31 at an early date is solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims or in making constructive suggestions so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,
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I. AMENDMENTS TO THE DRAWINGS

Kindly replace page 1/5 containing old Figure 1 with new page 1/5 containing new Figure 1, enclosed herewith.

Attachment: The Replacement Sheet containing the amended drawing is found in the Appendix following page 23 of this paper. A sheet showing the changes made to Figure 1 is also attached.

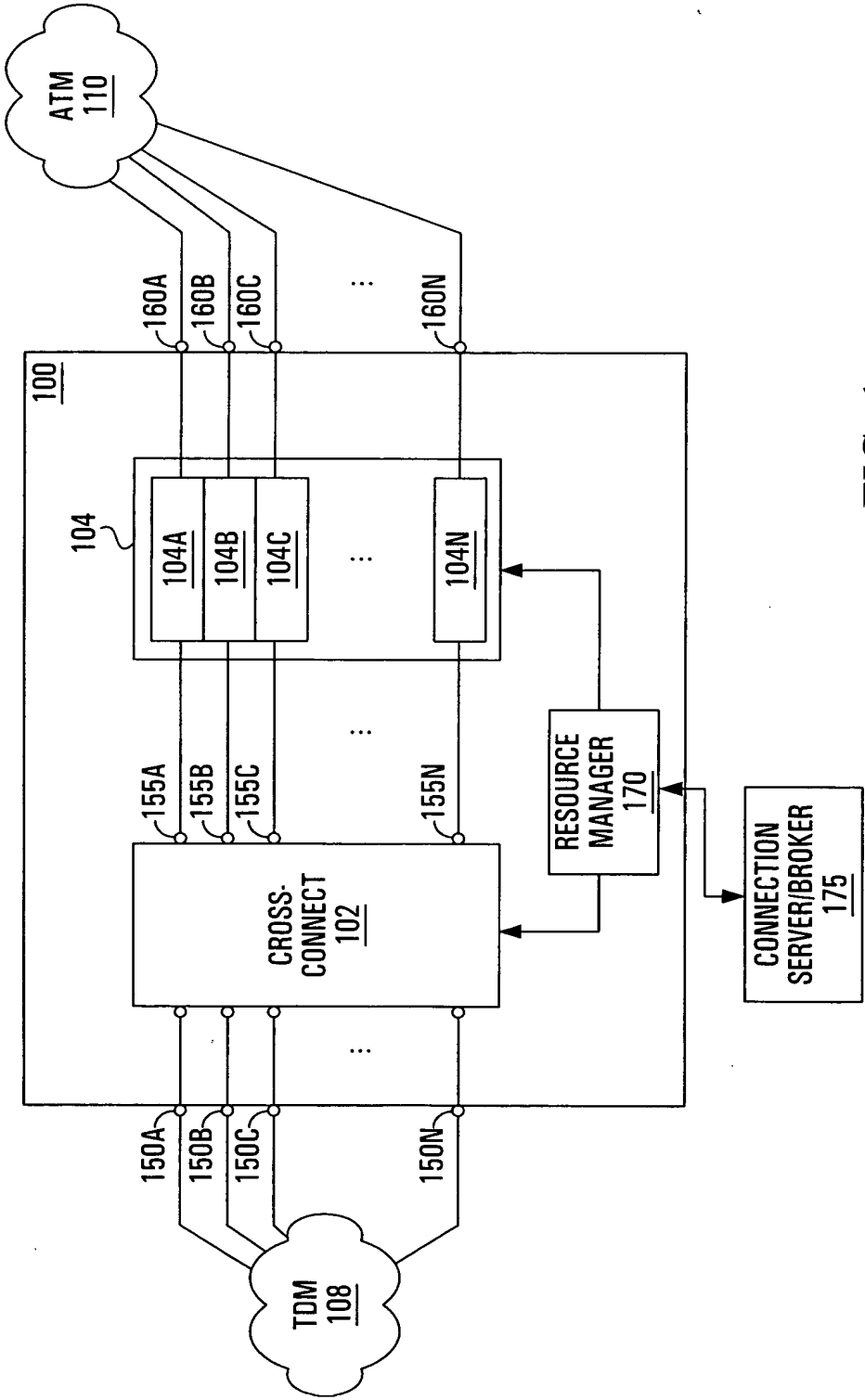
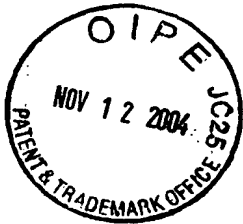


FIG. 1
(Prior Art)